A Work Project, presented as part of the requirements for the Award of a Master Degree in Finance from the NOVA – School of Business and Economics.

EQUITY RESEARCH: NESTLÉ S.A/ REVIEW ON THE FAST-MOVING CONSUMER INDUSTRY, MACROECONOMIC CONDITIONS AND VALUATION METHODOLOGIES

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Abstract

Nestlé is the world' largest Food and Beverage company present in 189 countries, and across several different business lines. The FMGC industry of which Food and Beverage is a part is a highly competitive and mature industry, thus with this Equity Research, we analysed how Nestlé has responded to these changes and how well. Our analysis considered concepts of strategy and economics and quantification and identification of risks the company is exposed to. A DCF methodology was adopted to determine the share price at the end of 2021, afterwards some scenarios were constructed.

Keywords:

- Value
- Risk
- Strategy
- Scenario

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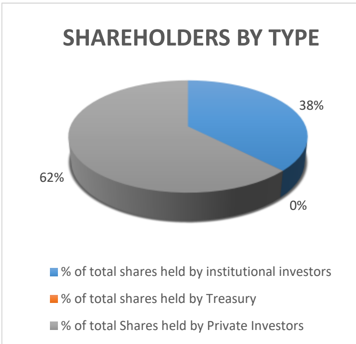
This report is part of the EQUITY RESEARCH: NESTLÉ S.A. report (annexed) and should be read has an integral part of it.

Shareholder Structure

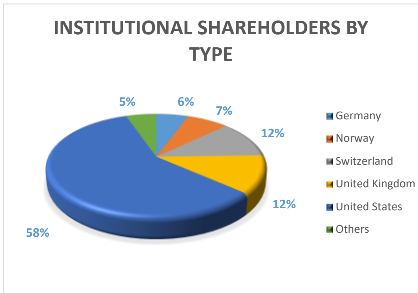
Nestlé is a company where no single investor holds a great deal of power, that is over 5% of all shares. The largest individual owners are BlackRock (4,97%), Capital Research Global Investors (3,72%) and the Vanguard Group (2,65%). These are the only investors who hold over 2% of the company's stock. In Exhibit 10, we can see that 37.63% of shares were held by Institutional Investors, 62.33% by Private Investors and only 0,03% of shares were held by Nestlé itself as Treasury. Regarding the geographical distribution of Shares, 5 countries hold the lion share of Nestlé's shares (as a percentage of institutional Investors), with the US clearly ahead with 58.19% as seen in Exhibit 11.

Exhibit 10- Shareholder Distribution by Type



Source: Thomson Reuters Eikon

Exhibit 11- Shareholder Distribution by Jurisdiction

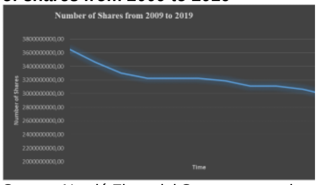


Source: Thomson Reuters Eikon

Buybacks and Dividends

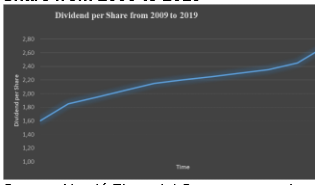
As a mature company, Nestlé rewards its investors with stock buybacks and dividends. Since 1959, Nestlé has always maintained or increased its dividends per share and often bought back stock. In *Exhibit 12*, we can see that Nestlé' shares in circulation are decreasing in absolute number has Nestlé has embarked in several stock buybacks throughout the years including this year at the end of June. In *Exhibit 13* and *14*, we can see that dividends per share and in absolute terms have been increasing, it is notable that they increasingly weigh heavy on the firm's financial statements, as can by the fact that the Dividend Payout Ratio seems to be trending upwards as seen in *Exhibit 15*, which could impact future investments by Nestlé and has led to some debt accumulation (as can be seen by the jump in net debt from 2017 to 2018, in conjunction with the Acquisition of a Perpetual License for Selling Starbucks Goods)[1].

Exhibit 12- Evolution of the number of shares from 2009 to 2019



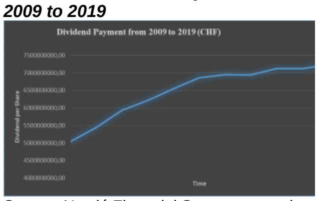
Source: Nestlé Financial Statements and Analysts

Exhibit 13- Evolution of Dividend per Share from 2009 to 2019



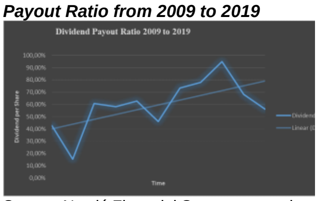
Source: Nestlé Financial Statements and Analysts

Exhibit 14- Dividend Payment from 2009 to 2019



Source: Nestlé Financial Statements and Analysts

Exhibit 15- Evolution of Dividend Payout Ratio from 2009 to 2019



Source: Nestlé Financial Statements and Analysts

[1] Finance.yahoo.com. 2020. *Yahoo Is Now A Part Of Verizon Media*. [online] Available at: <https://finance.yahoo.com/news/nestle-nsrg-y-q4-2018-031000196.html> [Accessed 31 December 2020].

FMCG Industry

Nestlé operates mainly in the Food Processing segment of the Fast-Moving Consumers Good Industry, although it has activities outside of this segment in Health Science and Skin Care (although it is being divested in). This is an heterogenous industry that groups together the market for products who sell quickly at a relatively low cost. These goods are typically bought and consumed regularly and rapidly by them, have short lives and in most cases are perishable.

Despite being a highly heterogenous industry, some characteristics are consistent throughout the industry. As can be seen in *Exhibit 16*, it is a relatively mature industry, with middle-of the row historical rates of growth, forward P/E ratios and Dividend Yield. In *Exhibit 17*, we can see that debt Levels are once again in the middle of the table when compared to other industries, this makes intuitive sense, a growth company will find it more valuable to issue equity now rather than in the future, whilst most FMCG companies such as Nestlé find it in their interest to increase their leverage in order to increase the tax advantage of debt. In *Exhibit 18*, we can clearly see that historic growth rates are also moderate, which is the hallmark of a mature industry (they are still positive since new consumers will join the FMCG market particularly in emergent economies).

The FMCG Industry is not a pro-cyclical industry, since most of its goods are in fact primary goods, a consumer will always want them/ need them no matter the economic climate, thus it is quite resistant to recessions despite the fact that it does not grow as much as other sectors when economic conditions are favourable, thus we are optimistic in regards to the pandemic in this regard. In *Exhibit 19* we can see that despite noticeable falls in the *Coffee*, *Non-Alcoholic Beverages*, *Bottled Water* segments, sales volumes remain robust in 2020 and then increase for the following years (in CHF assuming no currency effects). The goods previously mentioned are typically consumed outside home, and their fall is compensated by the growth/ maintenance of other goods typically consumed inside home. With the news of a coronavirus vaccine we expect a return to normal consumer patterns by 2021.

Exhibit 16- Expected growth in EBIT, Forward PE and Dividend Yield for selected Industries

Industry	Expected Growth in EBIT	Forward PE	Dividend Yield
Drugs (Biotechnology)	17,83%	67,54	1,11%
Food Processing	**7,44%**	**22,23**	**2,02%**
Healthcare Support Services	42,83%	26,41	1,43%
Oil/Gas (Integrated)	5,47%	13,64	4,19%
R.E.I.T.	0,20%	37,61	3,82%
Semiconductor	11,44%	77,71	1,72%
Software (Internet)	20,51%	157,57	0,21%
Steel	4,01%	16,90	4,66%
Telecom. Services	-3,24%	32,55	3,96%
Total Market (without financials)	**6,78%**	**30,12**	**2,21%**

Source: Damoradan Data for January 2020 (in US dollars)

Exhibit 17- Debt to Equity Ratio amongst selected industries (2020 figures)

Industry	Debt/ Equity
Nestlé	71,40%
Food Processing	77,20%
Software & IT Services	45,50%
Broadcasting	104,60%
Biotechnology & Medical Research	51,10%
Real Estate	118,40%

Source: Thomson Reuters Eikon

Exhibit 18- Historic Growth rates amongst selected industries

Industry	Annual Growth rate in Revenues	Annual Growth Rate in Net Income
Drugs (Biotechnology)	10,18%	31,89%
Food Processing	**7,44%**	**4,24%**
Healthcare Support Services	42,83%	18,44%
Oil/Gas (Integrated)	5,47%	-6,48%
R.E.I.T.	0,20%	10,67%
Semiconductor	11,44%	8,35%
Software (Internet)	20,51%	30,92%
Steel	4,01%	2,29%
Telecom. Services	-3,24%	10,08%
Total Market (without financials)	**6,78%**	**10,53%**

Exhibit 19- Evolution of sales amongst selected segments (assuming no currency effects)

Sector	2019	2020	2021	2022	2023	2024	2025
	Sales (Millions)						
Coffee Market	424385	357050	429948	485520	572216	560699	591131
Non-Alcoholic Beverage Market	819524,00	752360,00	835767,00	908893,00	962204,30	996704,00	1032638,70
Bottled Water Market	288426,00	269801,00	301752,00	330590,00	352637,00	368333,00	386456,00
Milk Products	206767,00	226900,00	229998,00	236561,00	246328,00	258513,00	270009,00
Ice Cream	107181,00	106296,00	111274,00	116137,00	120981,00	125201,00	129031,00
Baby Food	201315	204134,00	218796,00	233022,00	246916,00	261000,00	274196,00
Chocolate	175378,00	175683,00	184443,00	192352,00	200477,00	208524,00	216114,00
Sugar Confectionary	139615,00	139443,00	146516,00	152719,00	158819,00	164726,00	170240,00
Preserved Pastry Goods & Cakes	393309,00	392059,00	413414,00	432839,00	449300,00	469965,00	489629,00
PetCare	90972	94501,00	101275,00	105324,00	109198,00	114752,00	119555,00

Sector	2019	2020	2021	2022	2023	2024	2025
	Sales (2019=100)						
Coffee Market	100,00	84,13	101,31	114,41	134,83	132,12	139,29
Non-Alcoholic Beverage Market	100,00	91,80	101,98	110,90	117,41	121,62	126,00
Bottled Water Market	100,00	93,54	104,62	114,62	122,26	127,70	133,99
Milk Products	100,00	109,74	111,24	114,41	119,13	125,03	130,59
Ice Cream	100,00	99,17	103,82	108,36	112,88	116,81	120,39
Baby Food	100,00	101,40	108,68	115,75	122,65	129,65	136,20
Chocolate	100,00	100,17	105,17	109,68	114,31	118,90	123,23
Sugar Confectionary	100,00	99,88	104,94	109,39	113,75	117,99	121,94
Preserved Pastry Goods & Cakes	100,00	99,68	105,11	110,05	114,24	119,49	124,49
PetCare	100,00	103,88	111,33	115,78	120,03	126,14	131,42

Source: Statista and Analysts calculations

Exhibit 20- Porter 5 Forces Analysis of the FMGC Industry

Bargaining Power of Suppliers

Suppliers are many and fragmented.
Competition between suppliers is fierce and they are interchangeable by the buyers.
Most companies in the FMCG sector buy in bulk, thus they can more easily get price rebates.
Bargaining Power of Suppliers is low.

Threat of New Entrants

No Barriers to Entry.
Capital requirements are not as high as in other sectors.
Some differentiation of products in niche and premium segments.
Existance of some economies of scale
Logistical challenges for New Entrants.
We deem the Threat of New Entrants as medium.

Competitive rivalry

Low Barriers to Entry,
Existance of close substitutes.
Very high innovation
High advertisement expenses in the industry.
High price sensitivity of consumers.
Very High competitive rivalry

Threat of Substitute Products

Goods are not seen as highly distinct.
Most goods are not status symbols.
Low product differentiation.
The Threat of Substitute Products is high.

Bargaining power of Buyers

Consumers can easily choose with their money.
Presence of many subsitutes.
Due to representing a high share of consumer spending, consumers are very price sensitive.
The Bargaining power of Buyers is high.

Source: Analysts own analysis, annual review reports of Nestlé and "Perspectives on retail and consumer goods", McKinsey & Company, Number 8, August 2020

As we can see in *Exhibit 20*, the FMCG industry is highly competitive. Companies in this industry typically can influence greatly their suppliers, in Nestlé's case often small-scale farmers in developing countries (as in the case of chocolate or coffee), yet they operate in a very competitive industry due to: absence of barriers to entry; small switching costs; low levels of consumer loyalty; presence of many substitutes; low differentiation between goods ; high price sensitivity of consumers. We do not believe that Nestlé will be able to significantly increase its prices or quantities sold at the expense of its competitors, at least more than what it is already doing.

As we can see on *Exhibit 21*, several trends will disrupt the FMCG industry soon, but in our opinion, Nestlé is well poised to deal with them. Nestlé has taken into account the digital revolution taking place, it has registered organic growth in E-Commerce of 18% and 18.5% in 2018 and 2019, respectively which is at the higher end of the industry and takes into account big data and the internet of things in order to personalize its offers to consumers on their digital channels such as their sales website or recipes platform; Nestlé has a presence in more than 187 countries, thus it has expertise in many of the jurisdictions that will register the largest growth as can be seen in the case of China where it is firmly established and it represents the second most important market for the company after the US; Nestlé has a robust supply chain which it consistently updates to keep up with environmental needs and to improve efficiency; Nestlé has high commitments to ESG concerns. Nestlé has chosen to comply with the Paris Climate Agreement having agreed to cut its carbon emissions by half until 2030 and by 2050 it has committed to being carbon neutral. In 2019, 70% of Nestlé's raw materials were responsibly sourced, that is they complied with the environmental, animal, and human rights standards imposed by Nestlé; Nestlé continues to use M&A activity to increase its activity. In 2019 and 2020 Nestlé has divested from its Skin Health business and *Yinlu* (peanut milk and rice porridge businesses) whilst acquiring companies in the Prepared Meals (*Freshly*) and Nutrition and Health (*Zenpep®, Vital Proteins, Aimmune Therapeutics*) lines.

Exhibit 21- Trends in the FMGC Industry

Increased Digitalization and E-Commerce	Increased Price Sensitivity	Rise of Emergent Markets	Millenials and Gen-Z	Increased environmental, health and sustainability concerns
Consumers are increasingly more engaged digitally (especially with quarantines), this impacts impact pricing and marketing decisions of companies.	After recessions , consumer confidence drops as does available income. Thus, consumers are expected to be more in search of a bargain than beore. This pandemic has brought consumer confidence down massively.	Emergent markets in Asia are expected to generate the lion's share of growth in the FMCG industry, as a new middle class finds it footing. This carries challenges to firms, since this market is more tech savy, has already established brands and has different preferences.	Millenians and Gen-Z consumers look for more personalized items and are more willing to try new products and from small brands. They look for innovative and socially conscious products than their parents. In many countries they are also poorer than Baby Boomers.	Consumers are increasingly conscious about their health and also about environmental and sustainability concers. They care more about sourcing and how their goods are made (particularly young and western ones).
Rise of E-Commere	**Increased Competition from Smaller Competitors**	**Rise in Discounters**	**Activist pressures from investors**	**Supply Chain Disruptions**
E-Commerce has increased massively, with quarantines accelerating this trend. E-Commerce 's prevalence is varied across geographies with western countries lagging behind China. This trend is disruptive to traditional grocers.	Small brands have grown more than traditional giants. This can better respond to consumers needs for innovative and healthy products. This firms have often been acquired by large players in the industry allowing them to complement their products portfolio.	Bulk discounters have grown faster than the grocery market, thus there is an additional down-ward price pressure in this industry.	Investors care more about profits and short-term gains then a long-term vision. This can be clearly seen with their demands for dividends and stock buybacks, at the expense of firms' balance sheets.	There were some supply chain disruptions due to the pandemic at its inception with increased remote working. These have been mostly smoothed out, yet problems persist due to travel restrictions as we have seen due to the new virus strain in England. We believe that this issue will be temporary but may resurface in the future due to numerous factors such as climate change.

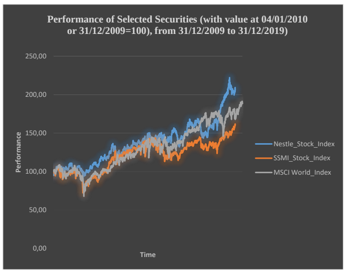
Source: Analysts own analysis, annual review reports of Nestlé and "Perspectives on retail and consumer goods", McKinsey & Company, Number 8, August 2020

Macroeconomic Outlook

Past Performance

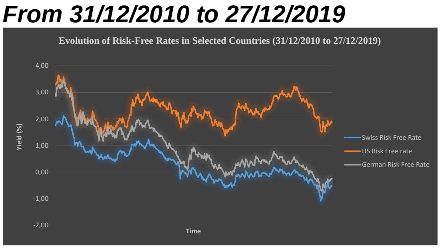
After the financial crisis that started in 2008, the world entered a bull market as can be seen in *Exhibit 22*: both the MSCI World and SSMI (Swiss Index) grew massively from 2009 to 2019, yet Nestlé outperformed them both. This massive growth in the stock market reflected not only a strong economic performance but also a policy of monetary expansion, as can be seen in *Exhibit 23*, which allowed for cheaper financing for companies and incentivized investors to invest in equity markets (since fixed income markets would yield less). This was particularly noticeable in several developed markets, especially for the Eurozone and Switzerland where yields have remained consistently below 0. An important factor to denote is how the Swiss Franc continued to be a safe haven for investors, having appreciated significantly against the EUR, BRL and USD and in a smaller magnitude against the CNY (the currencies of the 4 largest markets of Nestlé), as can be seen in *Exhibit 24*.

Exhibit 22- Evolution of Selected Securities from 31/12/2009 to 31/12/2019



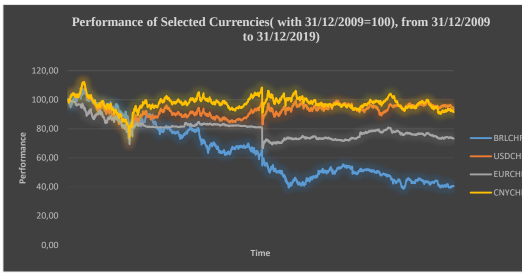
Source: Thomson Reuters Eikon and Analysts

Exhibit 23- Evolution of Risk-Free Rates (10-year benchmark) in selected countries From 31/12/2010 to 27/12/2019



Source: Thomson Reuters Eikon and Analysts

Exhibit 24- Evolution of Exchange rates between selected countries and the CHF from 31/12/2009 to 31/12/2019



Source: Thomson Reuters Eikon and Analysts

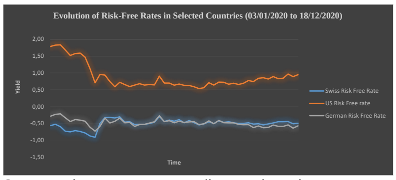
Coronavirus and the future

The defining event of 2020 was clearly the Coronavirus pandemic, since January it has caused massive disruption to the world economy. Whilst the FMCG industry was not as disrupted as others, we should mention its impacts, nonetheless. As a result of the immediate shock in demand, GDP will fall massively across the world, inflation also fell although further deflation was avoided by an expansionary monetary policy in much of the developed world, together with later fiscal stimulus. As, we can see in *Exhibit 25*, we believe that after the massive fall in GDP this year, with Covid-19 vaccines being made available throughout 2021, economic growth will return in the next few years, although it will be more sluggish in France (as a proxy for the EU), Switzerland, the US and in other developed countries than in developing countries. Inflation will remain low in developed countries whilst being larger in developing countries. We can see in *Exhibit 26*, that in the beginning of the year equities climbed slowly, plummeting sharply in March and April, later regaining most of their value by the end of the year, this was due to the aforementioned fiscal and monetary stimulus as well as regaining of consumer trust after the initial shock in March. As we can see in *Exhibit 27*, interest rates remain higher in the US than in Europe, with 10-year risk free rates for Swiss and Euro Investors remaining negative. The Swiss Franc also appreciated, as can be seen in *Exhibit 28*, particularly against the USD or BRL, continuing to be seen as a very secure asset by investors, we believe that this trend will hold in the future and Nestlé will have to deal with the continuing appreciation of the Swiss Franc in the years to come.

Exhibit 26- Evolution of Selected Securities from 31/12/2019 to 23/12/2020

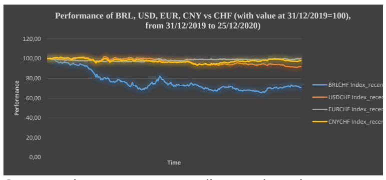
Source: Thomson Reuters Eikon and Analysts

Exhibit 27- Evolution of Risk-Free Rates (10-year benchmark) in selected countries from 03/01/2020 to 18/12/2020



Source: Thomson Reuters Eikon and Analysts

Exhibit 28- Evolution of Risk-Free Rates (10-year benchmark) in selected countries from 03/01/2020 to 18/12/2020



Source: Thomson Reuters Eikon and Analysts

Exhibit 25- Evolution of GDP growth rate and inflation rate across selected countries

Real GDP growth (%)						
	2020	2021	2022	2023	2024	2025
China	1,9	8,2	5,8	5,7	5,6	5,5
France	-9,8	6	2,9	2,3	1,9	1,7
Switzerland	-5,3	3,6	2,1	1,4	1,9	1,3
United States	-4,3	3,1	2,9	2,3	1,9	1,8
Advanced economies	-5,8	3,9	2,9	2,2	1,9	1,7
Developing economies	-3,3	6	5,1	4,9	4,8	4,7
World	-4,4	5,2	4,2	3,8	3,6	3,5

Real inflation rate, average consumer prices (%)						
	2020	2021	2022	2023	2024	2025
China	2,9	2,7	2,6	2,6	2,6	2,6
France	0,5	0,6	1	1,2	1,5	1,6
Switzerland	-0,8	0	0,3	0,8	0,9	1
United States	1,5	2,8	2,1	2,1	2,2	2,2
Advanced economies	0,8	1,6	1,6	1,7	1,8	1,9
Developing economies	5	4,7	4,3	4,2	4,1	4
World	3,2	3,4	3,2	3,1	3,1	3,2

Source: Thomson Reuters Eikon and Analysts

Valuation

Intrinsic Valuation

Methodology

We evaluated Nestlé through a discounted cash flow model (cash flows were discounted by WACC), if the capital structure would remain fixed in the future, with a D/EV ratio of 7.80%, which was the D/EV at the end of 2019. This value was taken as a target, since there was a great jump from 2017 to 2018, related to Share Buybacks and the beginning of the *Global Coffee Alliance* with *Starbucks* that carried a cost of 7.2 billion $. In 2020 the Coronavirus Pandemic led to a higher D/EV ratio since most firms borrowed to better whether the storm, strengthening our assumption. From 2021 onwards M&A activity[7] impact is assumed to be of 0, this is reasonable since its impact is small (Exhibit 45)[2]. We assumed that the statutory tax rate at the end of 2019 would be our future statutory tax rate, calculated as shown in Exhibit 46.

Exhibit 45- Evolution of Impact of M&A on sales

	2015	2016	2017	2018	2019	2020 (from 3rd Quarter Sales Reportt)
Impact of M&A on sales	0,10%	-0,80%	-1,90%	0,70%	-0,80%	-5,50%

Source: Nestlé annual review reports

Exhibit 46- Statutory and Effective Tax Rate

(in millions of CHF)	2014	2015	2016	2017	2018	2019
Expected tax expense at weighted average applicable tax rate	2245	3062	3331	3115	2925	2726
Operating Profit	10 905,00	12 408,00	13 163,00	10 156,00	13 752,00	16 078,00
Statutory Tax Rate	20,59%	24,68%	25,31%	30,67%	21,27%	16,95%
Effective Tax Rate	32,79%	28,05%	35,23%	29,31%	26,47%	20,97%

Source: Nestlé Financial Statements and Analysts

PP&E

Property, plant, and equipment weighs heavy on the Nestlé Balance Sheet, as we can see in *Exhibit 52*, and we expect that in the future it will weight increasingly as we expect some capital accumulation to occur. We split PP&E into Property, Plant and Equipment (owned by Nestlé) and Right-of-use assets which are leased. The leases are capitalized by Nestlé' cost of debt, 0,26%.

Assets owned by Nestlé are equal to their value last year plus net depreciation considering the trend from 2015 to 2019. All in all, we expect some Capital accumulation to occur, as this has happened historically.

Exhibit 52- Forecast for PP&E and Depreciation

PP& E in detail actual for 2018 and 2019 (millions of CHF)	2014	2015	2016	2017	2018	2019	2020 Januar	2020 July-D	2020 E	2021 F	2022 F	2023 F	2024 F	2025 F	2026 F	2027 F	2028 F
Property, plant and equipment- owned	25 355,44	23 709,45	24 581,96	27 457,32	26 837,00	25 552,00	23 851,30	23 823,52	23 823,52	24 797,78	25 781,07	26 773,91	27 776,81	28 790,27	29 838,05	30 918,81	32 031,45
Right-of-use assets- leased	3 065,56	2 866,55	2 972,04	3 319,68	3 119,00	3 210,00	2 883,70	2 883,70	2 883,70	2 891,32	2 898,95	2 906,60	2 914,28	2 921,97	2 929,68	2 937,42	2 945,17
Total	28 421,00	26 576,00	27 554,00	30 777,00	29 956,00	28 762,00	26 735,00	26 707,23	26 707,23	27 689,09	28 680,01	29 680,51	30 691,09	31 712,24	32 767,73	33 856,23	34 976,62
Capital Expenditures																	
Net capital expenditures		1 215,01	3 667,51	6 435,36	2 983,68	2 203,00	-129,70	1 533,70	1 403,99	4 054,76	4 189,77	4 326,48	4 464,92	4 605,15	4 770,52	4 938,98	5 110,61
% of revenues+ trend		1,37%	4,10%	7,18%	3,26%	2,38%	-0,32%	3,49%	1,65%	4,23%	4,35%	4,47%	4,59%	4,71%	4,82%	4,94%	5,06%
Trend to Incorporate	0,12%																
Depreciation	2 782,00	2 861,00	2 795,00	3 560,00	3 604,00	3 488,00	1 571,00	1 561,47	3 132,47	3 080,51	3 206,49	3 333,63	3 462,01	3 591,69	3 722,74	3 858,22	3 997,97
% of Last Year's PP&E		11,28%	11,79%	14,48%	13,13%	13,00%	6,15%	6,11%	12,26%	12,93%	12,93%	12,93%	12,93%	12,93%	12,93%	12,93%	12,93%

Source: Nestlé Financial Statements and Analysts

Derivatives

Nestlé employs Derivatives extensively to hedge interest rate, commodity, and foreign exchange risk, which we deemed a financing, core, non-core asset/liability (depending on their net value). Financing derivatives' value driver is percentage of total financial debt; Core Derivatives' value driver was percentage of sales revenue; Non-Core Derivatives were held constant- *Exhibit 53*.

Exhibit 53- Forecast for Derivatives

	2014	2015	2016	2017	2018	2019	2020 January-June	2020 July-December	2020 E	2021 F	2022 F	2023 F	2024 F	2025 F	2026 F	2027 F	2028 F
Financial Derivatives																	
Derivative assets	401,00	736,00	780,00	168,00	234,00	236,00	547,35		891,67	893,00	900,35	909,27	918,39	927,72	937,27	946,93	956,73
% of total financial debt	1,86%	3,35%	3,25%	0,56%	0,58%	0,63%	1,41%		1,67%	1,67%	1,67%	1,67%	1,67%	1,67%	1,67%	1,67%	1,67%
Core Derivatives																	
Net Derivative assets	0,00	0,00	0,00	0,00	0,00	109,00	252,80	82,30	82,30	16,23	16,31	16,39	16,48	16,57	16,74	16,92	17,10
Net Derivative liabilities	129,00	85,00	17,00	64,00	36,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
% (of Derivatives assets+ liabilities)/revenues	0,14%	0,10%	0,02%	0,07%	0,04%	-0,12%	-0,31%	-0,09%	-0,10%	-0,02%	-0,02%	-0,02%	-0,02%	-0,02%	-0,02%	-0,02%	-0,02%
Non-Core Derivatives																	
Derivative assets	173,00	137,00	279,00	0,00	5,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Derivative liabilities	0,00	0,00	0,00	44,00	0,00	39,00	90,45	90,45	90,45	90,45	90,45	90,45	90,45	90,45	90,45	90,45	90,45

Source: Nestlé Financial Statements and Analysts

Deferred Taxes

Nestlé's Deferred Tax assets and liabilities composed a significant portion of its balance sheet historically. Thus, we forecast using a flow variable, variation in Core Deferred Taxes whose value driver is percentages of sales whilst variation in Non-Core Deferred Taxes were held constant. This can be seen in *Exhibit 54*.

Exhibit 54- Forecast Deferred Taxes

	2014	2015	2016	2017	2018	2019	2020 January-June	2020 July-December	2020 E	2021 F	2022 F	2023 F	2024 F	2025 F	2026 F	2027 F	2028 F
ΔCore Deferred Taxes	-844,00	-164,00	-649,00	873,00	626,00	157,00	-120,43	115,97	115,97	237,57	238,78	240,02	241,30	242,60	245,13	247,69	250,29
% of sales	-0,92%	-0,18%	-0,73%	0,97%	0,68%	0,17%	-0,29%	0,26%	0,14%	0,25%	0,25%	0,25%	0,25%	0,25%	0,25%	0,25%	0,25%
ΔNon Core Deferred Taxes	111,00	-123,00	253,00	-446,00	39,00	92,00	-70,57	-70,57	92,00	92,00	92,00	92,00	92,00	92,00	92,00	92,00	92,00
Core Net Deferred Taxes 31st of I	-3 098,00	-3 262,00	-3 911,00	-3 038,00	-2 412,00	-2 255,00	-2 375,43	-2 259,46	-2 139,03	-1 901,46	-1 662,68	-1 422,66	-1 181,36	-938,76	-693,63	-445,94	-195,64
Non Core Net Deferred Taxes 31s	1 965,00	1 842,00	2 095,00	1 649,00	1 688,00	1 780,00	1 709,43	1 638,86	1 872,00	1 964,00	2 056,00	2 148,00	2 240,00	2 332,00	2 424,00	2 516,00	2 608,00
Core Deferred tax assets	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Core Deferred tax liabilities	3 098,00	3 262,00	3 911,00	3 038,00	2 412,00	2 255,00	2 375,43	2 259,46	2 139,03	1 901,46	1 662,68	1 422,66	1 181,36	938,76	693,63	445,94	195,64
Non-Core Deferred tax assets	1 965,00	1 842,00	2 095,00	1 649,00	1 688,00	1 780,00	1 709,43	1 638,86	1 638,86	1 964,00	2 056,00	2 148,00	2 240,00	2 332,00	2 424,00	2 516,00	2 608,00
Non-Core Deferred tax liabilities	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

Source: Nestlé Financial Statements and Analysts

Perpetuity

86% of the Forecasted Enterprise Value of Nestlé in 2021 derives from the discounted value in perpetuity, this means that most of the value to shareholders comes from the time after we forecast. According to our estimates Nestlé will be able to achieve its ROIC target of 15%[3] by 2021. Afterwards we forecast that the ROIC will begin to decrease because of capital accumulation. Our steady-state rate of growth is 1,04% which is above the forecasted inflation for Switzerland in our steady-state (1% as it is the last forecasted inflation rate by the IMF), thus Nestlé is growing in real terms, since it is outperforming the inflation rate of its reporting currency. This growth in real terms is driven by the Pet Care and Baby Food segments. We can see the calculations for growth in *Exhibit 55*.

Exhibit 55- Calculations for growth rate

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
NOPLAT	9054,43	9177,94	8782,82	7415,39	10360,54	12915,81	11338,52	12001,33	12062,66	12125,46	12189,76	12255,59	12383,43	12512,99	12644,28
Invested Capital (with goodwill)	80949,24	76503,70	76744,38	79369,80	87991,78	79239,36	76555,74	77215,09	78524,74	79845,25	81176,83	82519,99	83887,61	85291,04	86728,62
Invested Capital (without goodwill)	28185,00	27769,00	29400,00	35732,00	41580,00	36836,00	33956,60	34985,24	36068,40	37161,46	38264,62	39378,36	40526,46	41708,14	42921,73
ROIC (with goodwill)		11,34%	11,48%	9,66%	13,05%	14,68%	14,31%	15,68%	15,62%	15,44%	15,27%	15,10%	15,01%	14,92%	14,82%
ROIC (without goodwill)		32,56%	31,63%	25,22%	29,00%	31,06%	30,78%	35,34%	34,48%	33,62%	32,80%	32,03%	31,45%	30,88%	30,32%
RR (with goodwill)		-48,44%	2,74%	35,41%	83,22%	-67,77%	-23,67%	5,49%	10,86%	10,89%	10,92%	10,96%	11,04%	11,22%	11,37%
RR (without goodwill)		-4,53%	18,57%	85,39%	56,44%	-36,73%	-25,39%	8,57%	8,98%	9,01%	9,05%	9,09%	9,27%	9,44%	9,60%
RONIC (with goodwill)		-2,78%	-164,17%	-52,08%	34,16%	-29,19%	58,77%	100,52%	4,68%	4,76%	4,83%	4,90%	9,35%	9,23%	9,13%
RONIC (without goodwill)		-29,69%	-24,23%	-21,60%	50,36%	-53,86%	54,78%	64,44%	5,66%	5,75%	5,83%	5,91%	11,14%	10,96%	10,82%
g (with goodwill)		1,35%	-4,50%	-18,44%	28,43%	19,78%	-13,91%	5,52%	0,51%	0,52%	0,53%	0,54%	1,03%	1,04%	1,04%
g (without goodwill)		1,35%	-4,50%	-18,44%	28,43%	19,78%	-13,91%	5,52%	0,51%	0,52%	0,53%	0,54%	1,03%	1,04%	1,04%

Source: Nestlé Financial Statements and Analysts

Other KPIs

In order to complement our analysis we forecasted a few KPIs, presented in Exhibit 56. As we go forward in time, we can see that each individual share has a larger intrinsic value, since the P/B and P/E multiples are going down and ROE and EPS is increasing. We can see that Net Debt/ EBITDA is going down whilst the Interest Coverage Ratio is going up, thus we can infer that Nestlé has no major concerns regarding its ability to cover interest expenses and we expect that it will strength its solvency.

Exhibit 56- Other KPIs

	2019	2020 E	2021 F	2022 F	2023 F	2024 F	2025 F	2026 F	2027 F	2028 F
P/B	5,90	6,63	8,06	7,94	7,85	7,77	7,69	7,61	7,53	7,45
P/E	26,31	29,04	34,91	35,00	35,17	35,35	35,53	35,52	35,50	35,49
ROE	3,80%	3,44%	2,86%	2,86%	2,84%	2,83%	2,81%	2,82%	2,82%	2,82%
EPS	3,98	3,59	3,68	3,70	3,72	3,74	3,76	3,80	3,84	3,88
Net Debt/EBITDA	1,33	1,75	1,76	1,75	1,75	1,75	1,75	1,74	1,73	1,72
Interest Coverage Ratio	20,10	18,69	12,26	12,30	12,26	12,21	12,15	12,16	12,16	12,16

Source: Nestlé Financial Statements and Analysts

[3] Marketscreener.com. 2021. *Nestle S A : Barclays 2020 Global Consumer Staples Conference Fireside Chat TRANSCRIPT | Marketscreener*. [online] Available at: <https://www.marketscreener.com/quote/stock/NESTLE-S-A-9365334/news/Nestle-S-A-Barclays-2020-Global-Consumer-Staples-Conference-fireside-chat-TRANSCRIPT-31258580/> [Accessed 4 December 2020].

Results

Using this DCF model, we got a WACC of 3.59%, a perpetual growth rate of 1.04% and a target price for Nestlé in December 2021, of 129,58 CHF which represents a capital gain of 24.29%, which leads us to issue a BUY recommendation.

Risk assessment

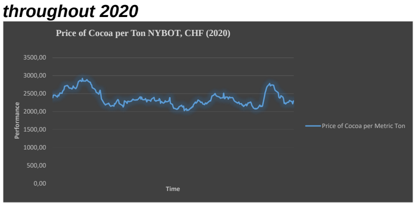
In this section, we will cover some of the risks associated with investing in a Nestlé share. As with any asset there are some risks associated thus their disclosure is important.

Commodity Price Risk

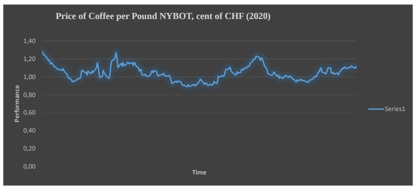
Despite having significant power over its suppliers, as mentioned before, much of the inputs used for manufacturing are very volatile. Take for example chocolate and coffee, as can be seen in *Exhibit 58*. Environmental factors can heavily impact agricultural production since it is heavily linked to the weather. Indeed, bad weather conditions will reduce supply. For instance, currently Brazil is having a drought in the state of Minas Gerais which is heavily impacting the price of Arabica Coffee[4]. With climate change, extreme events are to become more common place in the future and major drops in production are expected, up to 60% of land used for growing coffee may become unusable[5] and by 2050 cacao seeds could be extinct.[6] Disease outbreaks can also significantly impact agricultural production, with monocultures being particularly vulnerable such as the Cavendish banana, with Panama disease present throughout Asia, Africa and now spreading in Latin America where most bananas are cultivated[5]. In *Exhibit 59* we can see how our target price would change when we change Cost of Goods Sold (COGS). If COGS increase as a percentage of sales by 1,25% we will keep our buy recommendation. If COGS increase further, we will recommend a sale.

[4] Bloomberg.com. 2021. *Bloomberg - Are You A Robot?*. [online] Available at: <https://www.bloomberg.com/news/articles/2020-12-17/brazil-drought-damage-may-cut-arabica-coffee-crop-for-two-years> [Accessed 4 December 2020].
[5] SAIS Perspectives. 2021. *Climate Change Is Coming For Your Coffee — SAIS Perspectives*. [online] Available at: <http://www.saisperspectives.com/2020-issue/2020/1/24/climate-change-is-coming-for-your-coffee> [Accessed 4 December 2020].
[6] Business Insider. 2020. *Chocolate Could Be Extinct By 2050, But Some Companies Think Genetic Engineering Could Save Their Supply*. [online] Available at: <https://www.businessinsider.com/gmo-chocolate-farmers-extinct-2019-2> [Accessed 4 December 2020].

Exhibit 58- Evolution of Cocoa and Coffee Prices throughout 2020



Source: Thomson Reuters Eikon and Analysts



Source: Thomson Reuters Eikon and Analysts

Yearly volatility Cocoa	0,33
Yearly volatility Coffee	0,38

Exhibit 59- Target prices having into account increases in COGS

Current Share Price			104,26	
Scenario	Variable Changed		Share Price	Recommendation
Base	COGS F	50,38%	129,58	BUY
Moderately Pessimistic	COGS F	51,63%	117,25	BUY
Pessimistic	COGS F	52,88%	104,93	HOLD
Very Pessimistic	COGS F	55,38%	80,27	SELL

Source: Nestlé annual review reports

Exhibit 60- Return of Selected Currencies vs CHF

Return VS CHF	BRL	CNY	EUR	USD
31-dez-2007	0,12	-0,01	0,03	-0,07
31-dez-2008	-0,28	0,01	-0,10	-0,06
31-dez-2009	0,29	-0,03	-0,01	-0,03
31-dez-2010	-0,05	-0,07	-0,16	-0,10
31-dez-2011	-0,11	0,05	-0,03	0,00
31-dez-2012	-0,11	-0,01	-0,01	-0,02
31-dez-2013	-0,15	0,00	0,02	-0,02
31-dez-2014	-0,01	0,09	-0,02	0,11
31-dez-2015	-0,32	-0,04	-0,09	0,01
31-dez-2016	0,24	-0,05	-0,02	0,02
31-dez-2017	-0,06	0,02	0,09	-0,04
31-dez-2018	-0,14	-0,05	-0,04	0,01
31-dez-2019	-0,05	-0,03	-0,04	-0,01
31-dez-2020	-0,29	-0,02	0,00	-0,09

Source: Thomson Reuters Eikon and Analysts

Exchange Rate Risk

As we have mentioned before, only 1.59% of Nestlé sales were in CHF in 2019, thus it is exposed to significant currency risk in retranslating its earnings back to its reporting currency. The CHF is a value reserve since Switzerland is a haven due to its extreme stability and the low inflation target of the Swiss Central Bank. This has been shown in several recent events such as the Euro Sovereign Debt Crisis, the Covid-19 Pandemic or when it was unpegged from the euro in 2015, as we can see in *Exhibit 60*. When another crisis occurs, it is likely that the CHF would appreciate significantly as investors look for safety. We can see this in *Exhibit 61*. If Foreign Exchange impact increases by 0.5% our recommendation will change to Hold, whilst if Foreign Exchange Impact goes up 1% our recommendation will be to sell the stock.

Exhibit 61- Target prices having into account increases in currency losses in sales

Current Share Price			104,26	
Scenario	Variable Changed		Share Price	Recommendation
Base	Foreign Exchange Impact	-2,44%	129,58	BUY
Moderately Pessimistic	Foreign Exchange Impact	-2,69%	117,56	BUY
Pessimistic	Foreign Exchange Impact	-2,94%	107,50	HOLD
Very Pessimistic	Foreign Exchange Impact	-3,44%	91,62	SELL

Source: Nestlé annual review reports

Conclusion

We maintain our recommendation to Buy Nestlé stock for December 2021. Our DCF forecast led us initially to this result, although the multiple's recommendation was contradictory, using EV/ Sales ratio, we also got a buy recommendation. This is a best multiple to use given the similarity between the values of Enterprise Value and Revenues for the companies, when compared to the other metrics, as seen in Competitors Analysis. Our recommendation is still a buy for small changes in COGS/ Foreign Currency Translations, which are far more common and reasonable than "more black swan" like events. It is of note that Nestlé is less risky than the market and tends to reward its investors, so in our opinion it is a good investment.